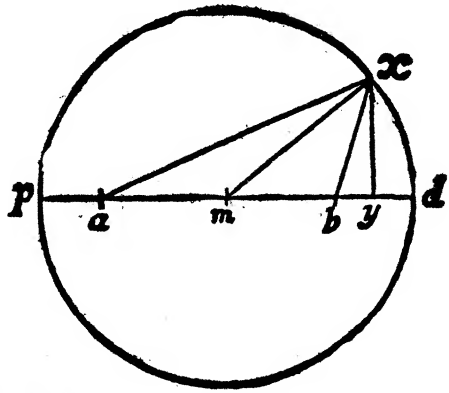
Lines *ax xb*, whoſe Squares together ſhall be equal to the Square given *gg*.



Le *axb* whoſe height is *xy* be the Triangle required. Biſect *ab* in *m* and draw *mx*.

ANALYSIS.

Let therefore axa + xbx = gg

But by the 13*th*. of the Introd. axa + xbx = 2ama + 2mxm

Therefore gg = 2ama + 2mxm

or gg − 2ama = 2mxm

Therefore the Problem is ſolv'd, but the Length of *mx* being given and not its Poſition, it is evident that it may be the Semidiameter of a Circle whoſe Circumference ſhall be the *Locus* of the point *x*.

Conſtruction and Demonſtration.

From the Square given *gg* Subtract the double Square of *am*, the Square root of half the remainder ſhall be the line *mx*, with the Center *m* and diſtance *mx*, deſcribe the Circle *pxd*, I ſay that any point *x* taken in its Circumference reſolves the Problem.

For ſince the double of the Squares of *am* and *xm* is equal to the Square *gg*, by the Conſtruction, and by the 13*th*. Propoſition of the Introduction to the Squares *ax* and *xb*: The two Squares *ax* and *xb* together will be equal to the Square *gg*. Which was to be done.

FINIS.

ERRATA.

Page 355. l. 1. for IV. r. III. p. 356. l. 26. for III. r. IV. and for *ſubtract, ſubtraction*, &c. r. *ſubſtract*, &c. p. 357. l. 33. r. *Soſigenes.*